

IN THE CLAIMS:

1. (Currently Amended) An organic electroluminescence element comprising an anode, a semiconductor layer, an organic light-emitting medium, and a cathode wherein the organic light-emitting medium is located between a first electrode and the semiconductor layer comprising a non-monocrystal material and a second electrode is electrically connected to an edge section of the semiconductor layer when either one of the anode or cathode is designated as the first electrode and the other electrode is designated as the second electrode, the second electrode being located outside an area common to both the first electrode and the organic light-emitting medium.

2. (Previously Presented) The organic electroluminescence element according to claim 1 wherein the second electrode is electrically connected to an extended section extended in a horizontal direction from the edge section of the semiconductor layer.

3. (Previously Presented) The organic electroluminescence element according to claim 1 wherein the second electrode is electrically connected to two or more edge sections of the semiconductor layer.

4. (Previously Presented) The organic electroluminescence element according to claim 1 wherein the second electrode is made in patterns of lattices or combs.

5. (Currently Amended) The organic electroluminescence element according to claim 1 wherein the non-monocrystal material is at least one of the ~~chalcogenide~~ chalcogenide materials selected from a group consisting of ZnS, ZnSe, CdS, CdTe, ZnTe, MgS, MgSe, ZnSSe, ZnMgSSe, ZnCdSSe, and ZnTeSe.

6. (Original) The organic electroluminescence element according to claim 1 wherein the non-monocrystal material is at least one of the metal oxide non-degenerate semiconductors selected from a group consisting of oxidized Al, Sn, Zn, In, Cd, Mg, and Si.

7. (Original) The organic electroluminescence element according to claim 1 wherein the non-monocrystal material is either amorphous carbon or diamond-like carbon.

8. (Previously Presented) The organic electroluminescence element according to claim 1, wherein the non-monocrystal material is a conductive conjugate polymer, an oxidizing agent added polymer, a reducing agent added polymer, an oxidizing agent added low-molecular weight compound, or a reducing agent added low-molecular weight compound.

9. (Previously Presented) The organic electroluminescence element according to claim 1 wherein the semiconductor layer has a band gap of at least 2.7 eV.

10. (Previously Presented) The organic electroluminescence element according to claim 1 wherein the semiconductor layer has a thickness of 1 to 700 nm.

11. (Previously Presented) The organic electroluminescence element according to claim 1 wherein the semiconductor layer has a specific resistance within the range of 1×10^{-3} to $1 \times 10^4 \Omega \cdot \text{cm}$.

12. (Previously Presented) The organic electroluminescence element according to claim 1 wherein the semiconductor layer has an electric charge concentration within the range of 1×10^{12} to $1 \times 10^{20} \text{ cm}^{-3}$.

13. (Previously Presented) The organic electroluminescence element according to claim 1 wherein the semiconductor layer has a light transmittance of at least 10%.

14. (Original) The organic electroluminescence element according to claim 1 wherein an electric insulation section is located between the second electrode and the organic light-emitting medium.

15. (Currently Amended) The organic electroluminescence element according to claim 1 wherein ~~the~~ a conductive layer is

Serial No. 09/750,682

interposed between the second electrode and the semiconductor layer.

16. (Canceled)

17. (Original) The organic electroluminescence element according to claim 1 wherein an auxiliary electrode is provided for the second electrode.

18. (Currently Amended) A manufacturing method for an organic electroluminescence element of claim 1 including an anode, a semiconductor layer, an organic light-emitting medium, and a cathode, comprising

forming a second electrode,

forming a semiconductor layer comprising a non-monocrystal material at a position where the second electrode is able to be electrically connected to an edge section of the semiconductor layer,

forming the organic light-emitting medium above the semiconductor layer, and

forming a first electrode above the organic light-emitting medium to interpose the organic light-emitting medium between the first electrode and the semiconductor layer,

when either one of the anode or cathode is designated as the first electrode and the other electrode is designated as the second electrode.

19. (Previously Presented) The process for manufacturing the organic electroluminescence element according to claim 18, further comprising including a step for patterning in the step of forming the second electrode.

20. (Previously Presented) The process for manufacturing the organic electroluminescence element according to claim 18, further comprising including forming an electric insulation film to cover the second electrode, or to form a non-injection type semiconductor layer or a metal layer.

21. (Canceled)

22. (Currently Amended) A manufacturing method for an organic electroluminescence element of claim 1 including an anode, a semiconductor layer, an organic light-emitting medium, and a cathode, comprising

forming a second electrode,

forming the semiconductor layer comprising a non-monocrystal material at a position where the second electrode is able to be electrically connected to an extension section extending horizontally from an edge section of the semiconductor layer,

forming the organic light-emitting medium above the semiconductor layer, and

forming a first electrode above the organic light-emitting medium to interpose the organic light-emitting medium between the first electrode and the semiconductor layer,

when either one of the anode or cathode is designated as the first electrode and the other electrode is designated as the second electrode.

23. (Canceled)

Serial No. 09/750,682

24. (New) The organic electroluminescence element according to claim 1 wherein the light emitted from the organic light-emitting medium is taken out through the semiconductor layer.